The Warmth and the Cold

Following the warmest December on record on the Chippewa, at the end of possibly the warmest recorded year on Earth, cold weather has once again descended upon northern Minnesota. Some snow has brought a bit of the insulating blanket that so many north woods wildlife depend upon in order to survive the elements as the thermometer drops.

My old dog lies on the floor near my feet, as we both sit close by the cookstove. She grumbles at me if I let the fire die down and the cold creeps along the kitchen floor. She still spends her days with the logger in the woods, but the cold gets to her more now than it used to. The logger grumbles, too on cold days when his bones ache.

The birds at the feeder tell the story of a period of transition. Below the feeder huddles a mourning dove. This bird should be south of us now, but due to bird feeders and warming winters, now is seen in the Twin Cities even this time of year. I am doubtful this one will make it through this cold snap, but we shall see. Perched on top of the feeder are pine grosbeaks, down from the north.

Pine grosbeaks are large, very tame finches we see in northern Minnesota irregularly in the wintertime. They breed in the far north in subarctic and boreal forests of northern Canada. In the summer they feed on insects, and use their conical beaks to nip the buds and growing tips of conifer branches. In wintertime they feed on the buds and seeds of mountain ash, box elder, maple, and ash and when key foods are limiting, they move southwards until they find sufficient food. This is when they appear at our bird feeders.

The size of a chunky robin, the male pine grosbeak is a distinctive brick red, with females being gray with a bronze head. You may hear them before you see them, as they call back and forth to keep feeding flocks together. We generally see small flocks of 5 – 10 or so birds, which are comprised of families and groups of families. They are quite gregarious with one another, with little squabbling in the wintertime.

You may notice these birds along roadsides in the winter, where they are attracted to sand and salt. Take care not to hit them, as these are among the least wary of birds. It is said they are readily caught when feeding in trees using a pole and monofilament line.

The pine grosbeak is characterized as a heat-sensitive subarctic bird species. It has retreated northwards in Finland, and is thought to be already responding to climatic and ecological changes associated with global warming.

One of the tricky parts of climate change for our north woods and its wildlife is that not only do trees, plants and animals need to live in a generally warming climate, but they need to survive our periodic cold spells, as well. It's not necessarily easy to be adapted to both kinds of conditions.

A recent paper in the journal "Science" suggests that humans have transformed the Earth to such a degree that it justifies recognition as a new epoch in the life of Earth. The Earth's geological record will bear the unique signature of human existence through the presence of man-made products like concrete and plastics in the Earth's Strata. Other indicators of human influence on natural systems include atmospheric pollution, high levels of nitrogen and phosphorous from fertilizers and pesticides, the persistence of isotopes from nuclear tests in the 1950's – 1960's, and an unusually high number of species extinctions.

And then there is climate change. In recent decades, temperatures have been increasing at global and national scales. The overwhelming majority of scientists attribute this to changes in greenhouse gases from human activities. In Northern Minnesota, substantial changes in temperature and precipitation have occurred over the past 100 years, and the rate of change appears to be increasing. Here in the north woods, climate change is anticipated to result in the loss of boreal conifers, reductions in species like aspen and birch, and expansion of northern hardwoods. With these changes in habitat will come considerable changes in our wildlife populations.

As individuals, are we powerless to affect such change? Just through the process of leading our lives, we can't help but contribute to the greenhouse gas emissions that are causing climate change. But although it may appear to be an unavoidable aspect of modern life, people can adjust their lifestyles to become more sustainable and lighten our collective load on the earth. On-line carbon footprint calculators are available to help you take a look at the choices you make in how you commute, shelter your family, and eat, and the impact these things have upon your carbon footprint – a way of thinking about your personal contribution to climate change.

Even without a calculator, the concepts are fairly basic. Is your home as energy efficient as it can be? Consider the energy efficiency of your appliances and lightbulbs. How's your insulation? Do you turn down your thermostat when not at home? Are you able to use renewable energy sources in heating your house? Do you turn off lights that are not in use? Power down your electronic devices and their cords?

Many of us do not live next door to our employers. Do you pay attention to fuel efficiency when you buy a vehicle? Can you share a commute?

Have you ever thought about where your food comes from? Do you consume as much locally-grown produce as possible? Food that travels half-way around the world requires energy to get there.

Like a New Year's resolution, our most successful attempts at change come if we start by biting off manageable chunks, and build from there. Perhaps you want to start your path towards a more sustainable lifestyle by taking a look at your garbage. Are there items in there that you could be recycling? Is there organic matter that you could be composting? Or maybe some of what is heading towards the dump strikes you as superfluous packaging, which you might eliminate at the store through "greener" purchasing choices in the future. How much junk mail comes to your household? Could you remove yourself from some mailing lists, thereby reducing the flow of printed material that travels to your home? Transportation of mail and goods equates to energy use.

To simplify, "reduce, reuse, recycle". Educate yourself about climate change, and what contributes to it. The news is full of such information, and there are infinite on-line resources available. Spend a little time thinking about in what ways you can reduce your footprint. As I read on one carbon footprint website, "your impact on the planet lasts longer than you think".

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